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Remarks

Reconsideration of remaining claims 1-4, 18, and 20-22 is respectfully requested.

In the Office action dated April 25, 2006, the Examiner issued a Final rejection of pending claims 1-4 and 18-22 under 35 USC § 102(e) as being anticipated by US Patent Application 2003/0174988 (Bickham et al.), of record.

In response to the Examiner's rejection, applicants have amended independent claims 1 and 18 to specifically define the optical system/fiber of the present invention as exhibiting a dispersion in the range of about 7.5 - 9.5 at the wavelength of 1550 nm, with an effective area at that wavelength in the range of 50-65 μm^2 . While Bickham makes statements regarding the "desire" to have a dispersion in the range of 4-10 at the wavelength of 1550 nm, none of the specific examples disclosed or further described in Bickham utilize a dispersion above 6.7. Bickham et al. lacks any description or suggestion of any particular arrangement of fiber parameters (in terms of physical dimensions, dopants, and the like) that would yield a dispersion above 6.7. Applicants thus assert that Bickham et al. is not enabling of the particular parameters of the optical fiber/system of the present invention as defined by the amended claims. There is no overlap between the various examples in the description of Bickham et al. and the dispersion range defined by the rejected claims.

Moreover, Bickham et al. is desirous of maintaining an effective area at 1550nm of "preferably less than" 55 μm^2 . This is beneficial to the arrangement of Bickham et al. in order to maintain low bending loss with the selected (relatively low) dispersion slope values.

In contrast, applicants have realized that by sacrificing the reduced chromatic dispersion to a degree, a fiber with a larger effective area may be used, resulting in the ability to increase the amplifying power of the arrangement without significantly impacting the bending loss. This sacrifice in terms of dispersion has also resulted in the ability to maintain the fiber cut-off value (in particular, both the LP₁₁ and the LP₀₂ cut-offs) at a value below 1300 nm, yielding a cable cut-off less than 1260nm and therefore

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providing for the desired single mode communication in this wavelength region. In contrast, Bickham et al. cites LP02 cut-off wavelengths in the range of 1590 - 1610 nm.

Applicants are including with this response, for illustrative purposes, a plot of dispersion vs. wavelength for an exemplary set of Bickham et al. fibers (taken from the data in the tables of Bickham et al.), as well as for the three examples from FIGs 7-9 of the present invention as defined by the amended claims (Attachement A). It is clear from this graph that at the communication wavelength of 1550 nm, a fiber formed in accordance with the present invention and a fiber formed in accordance with the teachings of Bickham et al. will exhibit markedly different characteristics.

Based on all of the above, applicants assert that Bickham et al. cannot be found to anticipate the subject matter of the present invention as defined by amended claims 1-4, 18 and 2-22. Applicants thus respectfully request the Examiner to reconsider this rejection and find the claims, as amended, to now be in condition for allowance. If for some reason or other the Examiner does not believe that the case is ready to issue and that an interview or telephone conversation would further the prosecution, the Examiner is invited to contact applicants' attorney at the telephone number listed below.

Respectfully submitted,

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Attachment A

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Dispersion Curves for Bickham and Jablonowski applications

